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- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: METHOD FOR ESTABLISHING AND CONDUCTING COMMUNICATION BETWEEN A DATA SOURCE AND A USER.

(57) Abstract: The present invention relates to a method of establishing and carrying out communication between a data source and a user, where said communication is effected via a fixed or a mobile network, wherein a program that handles said presentation to the user is placed in a server which is connected to a data source that contains data and which handles data to and from the source such that when receiving information from a user the server clears this information from the layout and protocol and sends to the data source solely interaction data, and, on the other hand, when receiving data from the data source places this data in a correct protocol for presentation to the user on his/her terminal in the right presentation form.

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**Method for establishing and conducting communication between a data source and a user.**

The present invention relates to a method of establishing and carrying out communication between a data source and a user, where said communication is effected via a fixed or a mobile network.

Communication between a data source and a user normally involves the transportation of a large volume of information through the network for presentation on the user's terminal. It has become more usual recently to require information stored somewhere or other, for example in a database in an application in another network, to be presented in different ways, depending on the type of terminal used by the user at that moment in time, for instance in the form of a voice message, an SMS-message, an HTML-message or some like message. If a large volume of information shall be distributed on each occasion, there is created a distribution problem, particularly when the information shall be distributed through the medium of mobile communication.

Hitherto, when presenting information to a user the data source responsible for distribution of the information to respective users sends the information to the user's terminal together with all presentation information. As a result, the volume of information distributed on each occasion becomes very large and complex.

The object of the present invention is to provide an improved method in this regard, that will enable communication to be established and carried out without always needing to transfer as much information as has hitherto been the case.

This object is achieved in accordance with the invention by means of a method in which a program that handles said presentation to the user is placed in a server which is connected to a data source that contains data and that handles data to  
5 and from the source such that when receiving information from a user the server clears this information from the layout and protocol and sends to the data source solely interaction data, and, vice versa, when receiving data from the data source places this data in a correct protocol for presentation  
10 to the user on his/her terminal in the right presentation form.

As opposed to earlier conventional user communication systems, the inventive method is not primarily directed to the  
15 presentation of information to the user, but is directed to the interaction between user and data source.

The programs that manage the user interaction are thus placed in a server, meaning that the data source and its associated  
20 computer to be freed from the need to maintain the different interfaces with which data shall be presented to the user. Neither need the data or information be transported to the same extent in both directions through the network. The server includes the programs that handle data from the data  
25 source and that places the data in the right layout for presentation to the user. This presentation may, for example, be in the form of a voice message, an SMS-message, an HTML-message or some corresponding message. The server is thus equipped with a program for linking data from the database  
30 with the user. However, in conjunction with this linking process, data is placed in the layout that is appropriate for distribution to the user. The server will therefore include several different programs for handling communication with

different types of user terminals and for different applications. The programs included in the server may also be designed to sort out data for different applications so as to enable said data to be sent to the data source always in a unitary fashion regardless of application, and so that data  
5 obtained from the data source can be converted for presentation in any one of the relevant applications whatsoever, i.e. in the form that the user is able to and wishes to receive the information.

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The programs included in the server may also be designed to contain a certain amount of dialogue, so that the program is able to proceed to the next stage without needing to send inputted information back to the data source and await an  
15 answer therefrom. For instance, this may apply to the presentation on a first page where the user is given the option of choosing between various alternatives and where subsequent dialogue pages that respond to the choices made by the user are stored in the server's program so that such responses can  
20 be presented directly to the user without needing to revert back to the data source. Certain other information from the user can be handled in a corresponding manner, and if the program in the server is able to deal with the information from the user it does so in accordance with the instructions  
25 found in the program, whereas in any other case the information cleansed from the layout is sent to the data source for an answer.

The dialogue is separated from presentation and layout information in the programs. This enables new presentation media  
30 to be readily added to existing applications in the server.

The server is thus able to manage several different applications for different users at one and the same time, and to present these applications to the different users with different interfaces.

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Parts of the program included in the server may be identical for different applications and may therewith be used in respect of several different applications. One example of such a program part is a log-in procedure in which the user is  
10 given the opportunity of entering his/her user-ID and password in preparation for access to a given service. The program included in the server contains dialogue as to how the user shall log-in and allows the user to enter his/her user-ID and password, this information being separated by the  
15 server and forwarded to the application at the data source for verification and to give the user access to further information.

Because the server contains those program parts that handle  
20 the presentation of information to the user and that create a user layout and also manage part of the dialogue with the user, it is not necessary to transport this information between the data source and the server, therewith reducing the transmission time and the transmission need between data  
25 source and server.

### Claims

1. A method of establishing and carrying out communication between a data source and a user, where said communication is effected via a fixed or a mobile network, characterised by placing a program that handles said presentation to the user in a server which is connected to a data source that contains data and which handles data to and from the source such that when receiving information from a user the server clears this information from the layout and protocol and sends to the data source solely interaction data, and, on the other hand, when receiving data from the data source places this data in a correct protocol for presentation to the user on his/her terminal in the right presentation form.
2. A method according to Claim 1, characterised in that the presentation handling program is independent of the application used by the user.
3. A method according to Claim 1 or 2, characterised in that the server is adapted to handle several different applications for different users simultaneously.
4. A method according to any one of the preceding Claims, characterised in that the program in the server also includes a dialogue facility which is able to handle user inputs and to respond to the user without reverting back to the data source.
5. A method according to Claim 4, characterised in that the dialogue facility is separate from the presentation and layout data in the program.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 2003/001715

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: G06F 17/30

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002156815 A1 (DAVIA, C J), 24 October 2002 (24.10.2002), figure 3, claim 3, abstract --	1-5
A	WO 0193097 A2 (NOKIA INC), 6 December 2001 (06.12.2001) --	1-5
A	US 2002065851 A1 (WATSON, E C ET AL), 30 May 2002 (30.05.2002) -----	1-5

☐ Further documents are listed in the continuation of Box C.
 ☒ See patent family annex.

## \* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
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"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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Information on patent family members

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US	2002156815	A1	24/10/2002	NONE		
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